Adaptive Admission/Congestion Control Policy For Hybrid TDMA/MC-CDMA Integrated Networks With Guaranteed QoS

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Summary

Future networks are expected to have the ability to accommodate variety of users, each with its own transmission characteristics and QoS requirements to be maintained. Compatible multiaccess system should provide the means to control (i.e. admission/congestion) the flow of traffic and at the same time maintain the QoS requirements. This paper investigates the performance of a novel measurement-based admission/congestion control policy over a hybrid TDMA/MC-CDMA platform. The practicality and several performance measures of the new system shall be analyzed analytically under a wide range of expected traffic characteristics (bit rate, transmission activities, etc.) for the future wireless networks. The adaptive admission/congestion control policy has effectively maintained the required QoS. It is worth to emphasize here that our proposed admission/congestion control polices apply preventive admission control as well as reactive congestion control.